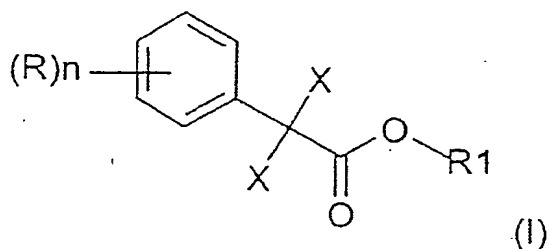
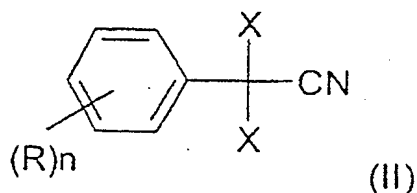


What is claimed is:

1. An improved process for preparing alkyl
2,2-dichloro- or dibromophenylacetates of the
5 formula



10 in which X is Cl or Br, n may be an integer from 1 to 5, R is hydrogen, C₁-C₈-alkyl, aryl, heteroaryl, C₁-C₈-alkoxy, aryloxy or halogen, and R₁ is C₁-C₈-alkyl, characterized in that a 2,2-dichloro- or dibromophenylacetonitrile of the formula



15 in which X, n and R are each as defined above, in from 0.8 to 2 mol of water per mole of nitrile of the formula (II), from 1 to 8 mol of alcohol of
20 the formula



25 in which R₁ is as defined above, per mole of nitrile of the formula (II) and in the presence of from 1 to 3 mol of HCl or HBr per mole of nitrile of the formula (II), optionally in the presence of a solvent inert

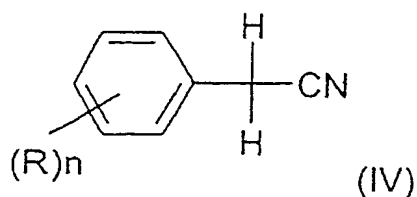
under the reaction conditions, is converted to the corresponding alkyl 2,2-dichloro- or dibromophenylacetate of the formula (I), the reaction temperature in the first phase of the conversion being from 30 to 60°C and, in the second phase, from 60 to 100°C, whereupon, on completion of conversion, the reaction mixture is cooled to from 20 to 40°C and diluted with water, and the corresponding alkyl 2,2-dichloro- or dibromophenylacetate of the formula (I) is isolated.

2. The process of claim 1, characterized in that, in the formula (I), R is hydrogen, C₁-C₄-alkyl, C₁-C₄-alkoxy, phenyl, phenoxy, fluorine, bromine or iodine, and n, if R is not hydrogen, is an integer from 1 to 3.

3. The process of claim 1, characterized in that the alcohol of the formula (III) used is methanol, ethanol or n-butanol.

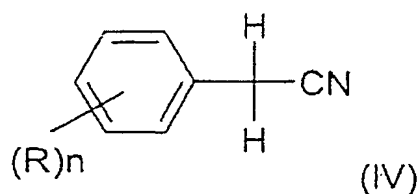
4. The process of claim 1, characterized in that, in the case that the alcohol of the formula (II) is used in an amount of from 1 up to 3 mol per mole of nitrile of the formula (II), the reaction is carried out in the presence of a solvent, inert under the reaction conditions, from the group of methyl tert-butyl ether, diethyl ether, tetrahydrofuran, dioxane, ethylene glycol dimethyl ether, toluene, hexane, heptane, dichloromethane or chlorobenzene.

5. The process of claim 1, characterized in that the HCl or HBr used is the HCl or HBr offgas which is obtained in the reaction of optionally substituted benzene cyanide of the formula

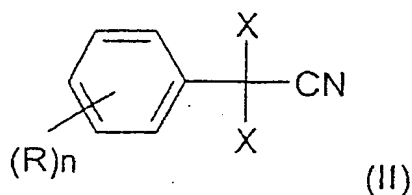


in which n and R are each as defined in the formula (I) with chlorine in the presence of catalytic amounts, or with a brominating agent, to the corresponding nitrile of the formula (II), which achieves direct coupling of the preparation of the nitrile of the formula (II) to the preparation of the corresponding alkyl 2,2-dichloro- or dibromophenylacetate of the formula (I).

6. A process for preparing alkyl 2,2-dichloro- or dibromophenylacetates of the formula (I), characterized in that, in a 1st stage, an optionally substituted benzyl cyanide of the formula

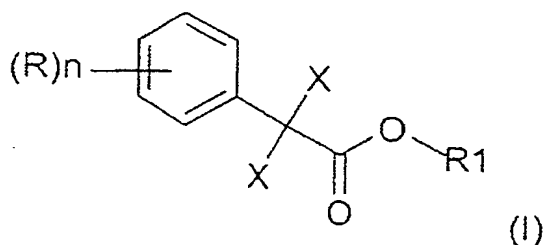


in which n may be an integer from 1 to 5 and R is hydrogen, C₁-C₈-alkyl, aryl, heteroaryl, C₁-C₈-alkoxy, aryloxy or halogen, and R₁ is C₁-C₈-alkyl, is reacted with chlorine in the presence of catalytic amounts of hydrogen chloride gas, or with a brominating agent, to give the corresponding nitrile of the formula



in which n and R are each as defined above and X is Cl or Br,

and the HCl or HBr offgas which forms is used in the second stage to convert the nitrile of the formula (II) to the corresponding alkyl 2,2-dichloro- or dibromophenylacetate of the formula



in which X, n and R are each as defined above and R1 is C₁-C₈-alkyl,

the conversion to the corresponding alkyl 2,2-dichloro- or dibromophenylacetate of the formula (I) in a second stage being effected in from 0.8 to 2 mol of water per mole of nitrile of the formula (II), from 1 to 8 mol of alcohol of the formula



in which R1 is as defined above, per mole of nitrile of the formula (II) and

with from 1 to 3 mol of HCl or HBr in the form of the offgas from the 1st stage per mole of nitrile of the formula (II), optionally in the presence of a solvent inert under the reaction conditions, and the reaction temperature in the first phase of the

conversion being from 30 to 60°C and, in the second phase, from 60 to 100°C, whereupon, on completion of conversion, the reaction mixture is cooled to from 20 to 40°C and diluted with water, and the corresponding alkyl 2,2-dichloro- or dibromophenylacetate of the formula (I) is isolated.

- 5
7. The process of claim 1, characterized in that the nitrile of the formula (II) is converted using an alcohol/water/HCl or HBr mixture which is obtained by passing HCl gas or HBr gas into a mixture of water and alcohol, or by passing HCl or HBr gas into a solution of alcohol and aqueous HCl or HBr, or by passing HCl or HBr gas into alcohol with subsequent dilution with water, and the desired molar ratio in the alcohol/water/HCl or HBr mixture can optionally be adjusted by diluting the aqueous, alcoholic HCl or HBr solution present with alcohol and/or water.
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- 15
- 20
8. The process of claim 7, characterized in that the HCl gas or HBr gas used is an offgas, obtained according to claim 5, from the conversion of a benzyl cyanide of the formula (IV) to the corresponding nitrile of the formula (II), as a result of which the preparation of the nitrile of the formula (II) does not have to be coupled directly with the preparation of the alkyl 2,2-dichloro- or dibromophenylacetate of the formula (I), and HCl or HBr which are obtained as offgas in the preparation of the nitrile of the formula (II) may also be intermediately stored in the form of the alcohol/water/HCl or HBr mixture.
- 25
- 30
- 35
9. The process of claim 1, characterized in that the corresponding alkyl 2,2-dichloro- or dibromophenylacetates of the formula (I) are isolated by

- 5 adding sufficient water that the precipitated ammonium chloride or bromide is just dissolved and a phase separation occurs, whereupon, optionally after extraction of the aqueous phase, water, alcohol and any extractant present are initially distilled out of the organic phase at atmospheric pressure and a maximum temperature of 90°C, and subsequently by-products under reduced pressure until a constant boiling temperature is attained, so that the corresponding alkyl 2,2-dichloro- or dibromophenylacetate of the formula (I) remains in the residue which may optionally be distilled overhead for further purification, or whereupon, optionally after extraction of the aqueous phase, the water is first removed from the organic phase on a water separator and alcohol and any extractant present are subsequently distilled off at atmospheric pressure.
- 10
- 15
- 20 10. The process of claim 9, characterized in that the crude alkyl 2,2-dichloro- or dibromophenylacetate of the formula (I), in the case that it contains too much organic acid, is admixed with an extractant from the group of hexane, heptane, toluene, ethers or esters and the corresponding alcohol of the formula (III) and again worked up distillatively.
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